



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE

REFER TO FILE: **WM-0**
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June 2, 2016

TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

BOARD MOTION OF APRIL 5, 2016, AGENDA ITEM NO. 14 REPORT ON NECESSARY ACTIONS, TIMELINE, AND BUDGET FOR DEVELOPING THE WATER RESILIENCY PLAN

On April 5, 2016, the Board instructed the Department of Public Works to prepare the following reports: (1) by June 3, 2016, report on the actions, timeline, and budget necessary to develop a Water Resiliency Plan; and (2) by July 5, 2016, report on the most appropriate funding mechanism to implement the Water Resiliency Plan. Attached is the requested report addressing the development of the Water Resiliency Plan. Upon direction from the Board, Public Works will begin carrying out the recommended actions.

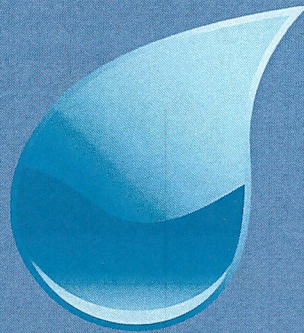
If you have any questions, please contact me or your staff may contact Gary Hildebrand at (626) 458-4012 or ghildeb@dpw.lacounty.gov.

RB:abc

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Attach.

cc: Chief Executive Office (Rochelle Goff)
Executive Office



WATER RESILIENCY WORK PLAN: PROPOSAL

*Outline for a viable program to enhance local and regional
water supply through multi-benefit approaches*

May 2016

Executive Summary

The Water Resiliency Work Plan sets out the principal components that Public Works will undertake in preparation of the Plan. Four key components have been identified that involve defining water resiliency, assessing County-wide water needs, coordinating information-gathering with water stakeholders, and developing next steps. Implementation of these components will identify proven strategies that contribute to a more robust local water supply and simultaneously address environmental and social needs by improving water quality, restoring natural habitats, and providing recreational opportunities that support healthy behaviors for communities. The principal outcomes will include a recommended definition of water resiliency and a regional role for the Board to consider for adoption, which will inform the selection of a funding mechanism.

Defining Water Resiliency

- Review academic and trade literature on water-related resiliency
- Articulate clear vision for water resiliency within the County of Los Angeles

Assessing Water Needs

- Review existing water management plans across the County
- Compile and map identified needs and projects
- Rapid assessment of funding needs
- Identify effective project types and funding shortfalls
- Identify existing programs and agencies responsible for water management

Stakeholder Engagement

- Develop stakeholder engagement strategy
- Identify and convene principal water stakeholders
- Facilitate information-gathering to record local needs and proposed solutions
- Develop public-oriented communication tools

Analysis and Next Steps

- Identify deficiencies and gaps in existing water programs, funding, and geographic distribution of needs, especially in disadvantaged communities
- Recommend a definition of water resiliency
- Propose a regional role for consideration by the Board for adoption and funding

Introduction

The Los Angeles region relies heavily on two key water sources: imported water and local groundwater. On average, imported water accounts for two-thirds, while groundwater provides the remaining one-third of the region's overall water supply. The primary sources of imported water are Northern California and the Colorado River Basin; however, these imported supplies are growing increasingly uncertain due to a number of environmental, social, and political factors. Recurring droughts in the Western United States, court decisions related to the Sacramento-San Joaquin Delta, changing demographics, climate change, and competing interests for available water supplies all contribute to this uncertainty and present long-term risks to the stability and reliability of imported water. Groundwater is the principal local resource for the Los Angeles region and generally serves as a reliable supplement to imported supplies. However, the prolonged drought, increased pumping, and contamination issues have impacted the region's ability to rely on its local groundwater.

The overall sustainability and resiliency of the region is in large part related to the management of water. Establishing adaptive management with the capacity to adjust to stressors including drought, flood, and population pressures is integral to a resilient system. How the region manages water has the potential to address environmental and social needs by improving water quality, reducing urban heat island effect, restoring natural habitats, and providing recreational opportunities that support healthy behaviors for communities. Multi-benefit solutions can effectively address not only water supply concerns, but contribute positively to the aesthetic and livability of neighborhoods throughout the County. The development and implementation of projects of this nature promise to have a profound impact on the future of the region's water supply and the overall resiliency of the County in the face of changing climate and growing population.

Water Resiliency Plan Proposal

At the direction of the Board of Supervisors, Public Works will develop a Water Resiliency Plan (WRP) that provides an assessment of regional water-related needs through the following tasks:

1. Conduct background research on water resiliency and program administration to inform best practice recommendations;
2. Compile and review existing regional water management plans to identify effective project types;
3. Create a roster of regional and local projects and conduct analysis to determine distribution and range of benefits;

4. Identify local needs and solutions through engagement of principal stakeholders (e.g. water agencies, Cities, NGOs) within each Watershed;
5. Determine gaps in distribution, development, and implementation of projects to identify the nature and scale of County-wide needs;
6. Evaluate existing multi-benefit project investment options and identify components in need of additional research and improvement;
7. Analyze compiled data to identify deficiencies and gaps in existing water programs, available funding, and geographic distribution with special emphasis on disadvantaged communities;
8. Recommend next steps required to address identified deficiencies in available funding, integrated and adaptive management, and project development and implementation.

These efforts will involve reviewing a wide array of existing water management plans, conducting a water needs assessment across the County, coordinating multiple stakeholders, and investigating funding gaps for multi-benefit projects. Identified tasks will be performed simultaneously and overlap as much as possible to ensure timely completion of the Plan. Furthermore, a rapid assessment will be conducted at the outset of the work to establish what types of water projects have the greatest need for reliable funding sources.

Defining Water Resiliency

Since the current effort aims to strengthen the region's ability to thrive in the face of uncertain forces like climate change and population growth, Public Works recommends reviewing the academic and trade literature on water-related resiliency. The review of case studies and underpinning theory will provide key definitions for resiliency and related concepts, proven strategies for development and implementation of supportive practices and parameters for successful implementation. The outcomes of the literature review will contribute meaningfully to establishing a clear vision for water resiliency within Los Angeles County and potential barriers to funding it.

This component of the plan should be completed within one month.

Milestones include:

- Water resiliency literature review

Assessing Water Needs

Public Works recommends devoting the first phase of the Water Resiliency Plan to an assessment of water needs across the County. Fortunately, the wealth of existing local and regional water management master plans provides key information on needs and

recommended solutions at different scales that are distributed throughout most of the County. These plans will be reviewed to collate and map identified needs and projects and highlight gaps in information and effective solutions. The review will include the Los Angeles Basin Stormwater Conservation Study (Basin Study), Watershed Management and Enhanced Watershed Management Plans (E/WMPs), Urban Water Management Plans (UWMPs), Integrated Regional Water Management Plans (IRWMPs), and additional water management planning tools created by regional and local entities within the County. These plans will also provide information on administrative and decision-making processes that will similarly be assessed to identify best practice strategies for future use.

This phase of the plan should be completed within six to nine months. A rapid assessment will be conducted within three months to provide a preliminary gap analysis of needed funding and inform the selection of an appropriate funding mechanism.

Milestones include:

- Rapid assessment of funding needs
- Effective project types and funding shortfalls identified
- Map highlighting projects and needs

Stakeholder Engagement

As part of the effort to establish water needs across the County, Public Works plans to engage water stakeholders to compile the most current information on ongoing projects and promising strategies, as well as perceived technical and funding gaps. This effort will require developing a stakeholder engagement strategy that facilitates communication through convened meetings and discussions, systematic information-gathering on water efforts and needs, and development of tools, such as a website, that provides information on the development of the plan and opportunities for public participation.

This component should be completed within eight to ten months.

Milestones include:

- Stakeholder engagement strategy
- Launch of website
- Compilation of stakeholder input

Analysis and Next Steps

Public Works will evaluate the data compiled from existing water management plans and key stakeholders to determine the types and distribution of water needs throughout the

County, paying special attention to disadvantaged communities. The outcomes will include a report with the following items for Board consideration:

1. A recommended definition of regional water resiliency;
2. Proposed regional role in water resiliency for adoption and possible funding;
3. Possible next steps for the development of financial, programmatic, and project-level strategies that can address identified needs and compose the next phase of the Water Resiliency Plan.

Timeline and Cost Estimate

Public Works, in collaboration with the Chief Executive Office and other County Departments, intends to conduct an assessment of water needs that integrates compilation and review of existing water management plans and project proposals, gap analysis of project funding, and coordination of multiple stakeholders. Given the intricacy of these multiple items, drafting the WRP is presumed to require 12 months.

Tasks	Milestones	Months					
		1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	11 - 12
Defining Water Resiliency							
	Water resiliency literature review	✓					
Assessing Water Needs							
	Rapid assessment of funding needs		✓				
	Effective project types and funding shortfalls identified				✓		
	Map highlighting projects and needs					✓	
Stakeholder Engagement							
	Stakeholder engagement strategy		✓				
	Launch of website	✓					
	Compilation of stakeholder input				✓		
Analysis and Next Steps							
	Final Report						✓

Cost Estimate:

\$1 million*

*To perform the tasks necessary to develop the Plan and also meet the proposed timeline, Public Works will utilize in-house expertise and as-needed consultants.